

ABSTRACT

5 An optical fiber having one or more resin coatings is
manufactured by applying at least one electron beam-curable
resin composition to a bare optical fiber, and exposing the
resin composition to electron beams to cure the resin
composition. The EB-curable resin composition contains (A)
10 10-90% by weight of a urethane (meth)acrylate oligomer and
(B) 90-10% by weight of a reactive diluent. The exposure to
electron beams is done under conditions including (a) an
acceleration voltage of 50-150 kV, (b) a distance of 0.5 mm
to less than 10 mm between an electron beam window and the
optical fiber surface, (c) an atmosphere of nitrogen or
15 helium under atmospheric pressure, having (d) an oxygen
concentration of up to 1,000 ppm, and (e) at least two
directions of irradiation to the optical fiber.

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